REMARKS

This amendment is responsive to the Office Action of July 2, 2007. Reconsideration and allowance of claims 2-15 are requested.

The Office Action

Claims 1-9 stand rejected under 35 U.S.C. § 102 as being anticipated by Prussmann (US 6,545,472).

Claim 10 was objected to under 37 CFR 1.75(c) and was not treated on the merits.

The Claims Are Patentable
Over Prussmann

The Examiner asserts that the last paragraph of column 9 of Prussmann calls for the iterations to begin not with a zero image, but with an estimate of the image. However, a careful reading will show that this paragraph does not state that the reconstruction of a new image should start with a non-zero estimate of an image. In an iterative process, there is a plurality of iterations. The sentence which starts at column 9, line 65, says that "the [each] iteration commences with an estimate of the image data". As used in line 62, the estimate of the reconstructed image data refers to the image data at the end of the prior iteration. It is submitted that the last paragraph at the bottom of column 9 merely indicates that each iteration starts with the prior iteration.

It is submitted that the last paragraph of column 9 of Prussman does not state that an image reconstruction starts with a non-zero estimate of the image. Even if one were to interpret the last paragraph of page 9 as suggesting that a reconstruction should start with a non-zero estimate of the final image, there is no suggestion what that estimated image should be or where it should come from.

Claim 2, which has been placed in independent form including the subject matter of original claim 1, specifies that the starting image is generated by reconstructing restricted subregions from MR signals that are acquired by receiving coils that have high respective sensitivities in these subregions. There is no disclosure in Prussmann that describes starting an image reconstruction with a starting image of this nature. Accordingly, it is submitted that **claim 2 and claims 3, 9, and 10**

dependent therefrom are not anticipated by Prussmann and distinguish patentably and unobviously over the references of record.

Claim 3 further describes how other subregions of the start image are synthesized. Again, it is submitted that Prussmann neither describes generating a starting image using a subregion generation technique, much less the more detailed description of the technique set forth in claim 3.

Claim 5 calls for the starting image to be an image that was reconstructed prior to and is similar to the new MR image being reconstructed. Again, it is submitted that the last paragraph of column 9 does not disclose using such a prior reconstructed MR image as a starting image. Accordingly, it is submitted that **claim 5 and claims 4, 6-8, and 11-15 dependent therefrom** are not anticipated by Prussmann.

Dependent **claim 6** specifies that the start image is an adjacent slice to the image being reconstructed. Again, Prussmann fails to suggest a starting image, much less a starting image in the nature of an adjacent prior reconstructed slice.

Claim 7 calls for the start image to be an image that was reconstructed at a prior time. Claim 13 calls for the prior time to be an earlier imaging session. Again, Prussmann does not disclose starting an image reconstruction using a prior image.

Corrected Drawings

The applicants are submitting a replacement sheet of drawings, including Figure 3, in which the boxes have been labeled. An early indication of the acceptability of the drawings is hereby requested.
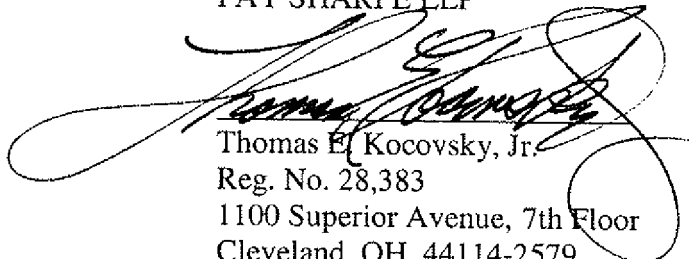
CONCLUSION

For the reasons set forth above, it is submitted that claims 2-15 distinguish patentably over the references of record. An early allowance of all claims is requested.

In the event the Examiner considers personal contact advantageous to the disposition of this case, he is requested to telephone Thomas Kocovsky at (216) 861-5582.

Respectfully submitted,

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